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THE WAVE

What All Pool Staff Should Know about Recreational Water Illnesses

What are Recreational Water Illnesses (RWIs)?

What is the first thing that pops into your head when you think about water safety?

Drowning? Slipping? Lightning? All good answers, and all are very important. But, did you know that germs can contaminate swimming water and make people sick? These germs cause recreational water illnesses (RWIs) that have made many people sick in the past.

RWIs are caused by waterborne germs like Crypto (KRIP-toe, short for *Cryptosporidium*), *Giardia* (gee-ARE-dee-uh), *E coli* 0157:H7, and *Shigella* (Shi-GELL-uh).

Inside this issue:

Life Guards Need to Know About pH and Chlorine Testing

During the hot summers, lifeguards sit in chairs observing the activities of pool patrons. When break-time finally comes, lifeguards are asked to test the pH and chlorine levels in the pool. Because testing is usually done during breaks (possibly implying that testing is not that important), it is critical that all life guards know why testing pH and chlorine is important for protecting patrons and staff from RWIs.

To help teach lifeguards about the importance of testing pH and chlorine, CDC's Healthy Swimming 2002 project has a **new** fact sheet which discusses the importance of testing for chlorine and pH.

Chlorine and pH are the first line of defense against germs that can make swimmers sick. Pool staff need to know that protecting swimmers and their families from RWIs is the reason they regularly check both the chlorine and pH levels.

The disinfection fact sheet discusses how chlorine works and why pH is important for disinfection.

Use this fact sheet to help your staff understand the importance of water testing and keeping swimmers safe from RWIs.

The fact sheet can be found at:

www.cdc.gov/healthyswimming/fact_sheets.htm

Protect Your Facility Against RWIs: 10 Easy Steps

The following ideas have come from discussions with your fellow pool staff and patrons and could help reduce the spread of RWIs.

STEP 1: Educate your staff.
Invest in knowledge. Your staff are the greatest safety net for detecting and correcting potential problems.

STEP 2: Educate your patrons.
They care about their health. Give them the Healthy Swimming tools to keep them healthy at the pool.

STEP 3: Maintain water quality and equipment.
Stop germs at the gates by keeping your pool chemicals, filters, and equipment in top shape.

STEP 4: Evaluate your pool or waterpark design.
Maximize customer satisfaction. Make design or retrofit decisions that will keep patrons healthy.

STEP 5: Evaluate your restrooms and diaper-changing areas.
Good hygiene is good for you and your patrons. Make restrooms and diaper-changing facilities user friendly and accessible so that your pool or deck doesn't substitute for a trip to the restroom or diaper-changing area.

STEP 6: Develop a fecal accident response policy.
Poop in the pool may be an accident for your patrons. However, you should have a response policy in place for use by trained staff.

STEP 7: Develop a bathroom break policy.
Make it easy for parents to get their children to the bathroom. Flushing poop down makes your job easier, the pool safer and...could even help cut disinfection chemical costs.

STEP 8: Create a special policy for groups of young kids.
Make sure that they are adequately supervised. Let the group leaders know that your pool, like any child-care facility, does not allow children to swim when they are ill with diarrhea.

STEP 9: Post signs.
Data suggests that many signs are regularly ignored. Therefore, get creative and develop signs that catch your patrons eyes.

STEP 10: Develop an outbreak response plan.
Television interview in 15 minutes! Where is your plan? Are you prepared to have cameras and lights in your eyes with demands for immediate answers? Follow the leaders in the industry and be prepared for different scenarios **before** you have a problem.

Do you have a policy for implementing any of the 10 steps? Let others learn from your experience. E-mail comments to healthyswimming@cdc.gov

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2001 News—Unchlorinated Swimming Pools

Two media investigations that took random water samples from swimming pools found that over half of the pools sampled had zero free chlorine.

On July 27th, the Orlando Sentinel reported that county inspections yielded over 100 pools with zero chlorine.

On September 7th, Inside Edition reported

(see 2001 News pg. 4)

Cleaning Up Body Fluid Spills on Pool Surfaces

Spills of body fluids, including blood, feces, urine, and vomit on the deck or other surfaces should be cleaned up immediately. When cleaning, ensure that gloves are worn. Avoid getting any body fluid in your eyes, nose, mouth or any open sores.

First, clean up the spilled material. Disinfect surfaces (swimming pool deck, diaper-changing areas, countertops and floors) by pouring disinfectant on the spill, until the spill is covered. After 10 minutes, finish cleaning up the area. Discard contaminated material in a plastic bag that has been securely sealed. Mops used to clean up body fluids should be (1) cleaned, (2) rinsed with a disinfecting solution, (3) wrung as dry as possible, and (4) hung to dry completely. Be sure to wash your hands after cleaning up any spill.

One of the most commonly used chemicals for disinfection is a homemade solution of household bleach and water. Commercial products that meet EPA's "hospital grade" germicide standards may also be used.

A solution of bleach and water loses its strength quickly and easily. Therefore, bleach solution should be mixed fresh before each clean-up event to make sure it is effective. **Don't mix disinfection chemicals**. Other chemicals may react with bleach and cause the release of toxic chlorine gas.

Recipe for Bleach Disinfecting Solution (For body fluid spills)

9 parts cool water

1 part household bleach

Add the household bleach to the water.

Any leftover solution should be discarded. ***NEVER*** *mix bleach with anything but fresh tap water.*

Interactive Fountains & Wet Decks

There is no standing water in the attraction so the water shouldn't get contaminated, right? Wrong.

A 1999 outbreak of diarrheal illness affected 44% of patrons (an estimated 4800 people) who visited a new local interactive water fountain in a beachside park. When officials from the health department inspected the park, they found that the water from the interactive fountain drained from the wet deck/play area (no standing water) into an underground reservoir for recirculation. What was the problem? Inadequate chlorination and no filtration system. The chlorine tablet erosion feeder hadn't been filled for weeks and the designers didn't include a filtration system.

(see Interactive Fountains pg. 4)

www.healthyswimming.org

What's new in 2002? Based on user feedback, the website (which contains all of our downloadable documents) has been reorganized, making it easier for users to find what they need. The Healthy Swimming 2002 project introduces new fact sheets designed for pool staff and patrons on "Swimmer's Ear," Chlorine and pH testing, dermatitis (hot tub rash), updated questions and answers, and new links to marine and fresh water information. For more information, visit the Healthy Swimming 2002 website.

2001 News *(continued from page 2)*

testing over 28 pools throughout New Jersey and Florida, and found that 15 (54%) of the pools tested had zero chlorine.

What can happen to those who don't maintain their disinfectant levels? RWI outbreaks.

One *Shigella* outbreak last summer in an unchlorinated pool resulted in 69 people, mostly children, becoming ill. Even worse is that the illness spread into local child care facilities and the community so that hundreds of people became ill.

Why take the chance? Check those chlorine and pH levels again!

Find the MMWR article at:
www.cdc.gov/mmwr/preview/mmwrhtml/mm5037a1.htm

Interactive Fountains *(continued from page 3)*

People don't like to think about it but spray water will rinse any contamination (diarrhea, vomit) down into the water holding area. Because these interactive fountains are new to the recreational water fun scene, your health department may not have specific requirements for how the water is treated (check with your health department to be sure).

However, it pays to be proactive by building interactive fountains like any other water attraction you have built. Insist on having appropriate disinfection and filtration systems

installed....even if it isn't written in your local or state code.

Find the MMWR article at:
www.cdc.gov/mmwr/preview/mmwrhtml/mm4925a3.htm